

PRODUCT INFORMATION



2,3-DCPE (hydrochloride)

Item No. 10005229

CAS Registry No.: 1009555-55-8
Formal Name: 2-[[3-(2,3-dichlorophenoxy)propyl]amino]ethanol,

monohydrochloride

MF: C₁₁H₁₅Cl₂NO₂ • HCl

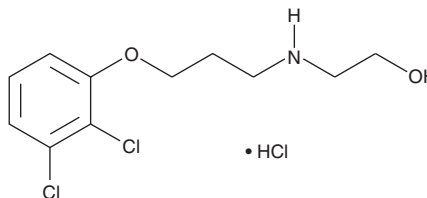
FW: 300.6

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

2,3-DCPE (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the 2,3-DCPE (hydrochloride) in an organic solvent purged with an inert gas. 2,3-DCPE (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 2,3-DCPE (hydrochloride) in these solvents is approximately 20 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 2,3-DCPE (hydrochloride) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 2,3-DCPE (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

2,3-DCPE is a proapoptotic compound with selectivity for cancer cells versus normal human cells. It induces apoptosis *in vitro* in various cancer cell lines (IC₅₀s = 0.89-2.69 μM) more effectively than in normal human fibroblasts (IC₅₀ = 12.6 μM). 2,3-DCPE down-regulates Bcl-xL, however forced overexpression of Bcl-xL is sufficient to block 2,3-DCPE apoptosis induction.¹ 2,3-DCPE can induce S-phase arrest, upregulate p21, and activate ERK.²

References

1. Wu, S., Zhu, H., Gu, J., *et al.* Induction of apoptosis and down-regulation of Bcl-XL in cancer cells by a novel small molecule, 2[[3-(2,3-dichlorophenoxy)propyl]amino]ethanol. *Cancer Res.* **64**, 1110-1113 (2004).
2. Zhu, H., Zhang, L., Wu, S., *et al.* Induction of S-phase arrest and p21 overexpression by a small molecule 2[[3-(2,3-dichlorophenoxy)propyl] amino]ethanol in correlation with activation of ERK. *Oncogene* **23**, 4984-4992 (2004).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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